

IN THE UNITED STATES PATENT AND TRADE MARK OFFICE

OUR FILE NO. : 1004P60US01
SERIAL NO. : 10/600,345
FILED : 23 Jun 2003
APPLICANT : Edward J. ANTHONY et al..
GROUP ART UNIT : Unknown
TITLE : Regeneration of Calcium Oxide or Calcium Carbonate
From Waste Calcium Sulphide

INFORMATION DISCLOSURE STATEMENT
Under 37 C.F.R. 1.97

U.S. Patent and Trademark Office
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Customer Window
Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202
U.S.A.

Sir:

Under the provisions of 37 C.F.R. 1.97, including particularly subsections (a) and (e) thereof, and 37 C.F.R. 1.98 including specifically subsection (a) thereof, Applicant calls to the attention of the Examiner the following documents, copies of which are enclosed:

U.S. PATENT DOCUMENTS

AA US 3,688,438
AB US 3,709,669
AC US 3,922,148
AD US 3,944,486
AE US 4,102,989
AF US 4,216,197
AG US 4,262,610
AH US 4,321,242

AI	US 4,370,161
AJ	US 4,410,336
AK	US 4,424,197
AL	US 4,435,148
AM	US 4,503,785
AN	US 4,602,573
AO	US 4,609,541
AP	US 4,624,192
AQ	US 4,635,572
AR	US 4,686,090
AS	US 4,704,136
AT	US 4,722,832
AU	US 4,738,207
AV	US 4,913,068
AW	US 5,027,723
AX	US 5,228,399
AY	US 5,396,849
AZ	US 5,551,357
AAA	US 5,653,955
AAB	US 5,662,051
AAC	US 6,083,862

NON PATENT LITERATURE DOCUMENTS

BA	The British Coal Spouted Fluidized Bed Gasification Process. <i>The Canadian Journal of Chemical Engineering</i> , Volume 70, October, 1992, 991-997
BB	The Rate and the Fundamental Mechanisms of the Reaction of Hydrogen Sulfide with the Basic Minerals in Coal. <i>Ind. Eng. Chem. Process Des. Dev.</i> 1979, 18, 607-618
BC	Reaction of H ₂ S and Sulfur with Limestone Particles. <i>Ind. Eng. Chem. Process Des. Dev.</i> 1984, 23, 742-748
BD	The Sulphidation of Calcined Limestone with Hydrogen Sulphide and Carbonyl Sulphide. <i>Chem. Eng. Sci.</i> 1995, 50, 2983-2996

- BE Regeneration of Calcium Sulfide under Alternating Oxidizing and Inert Conditions: Kinetics and Mechanism. *Ind. Eng. Chem. Res.* 1998, 37, 923-928
- BF Regeneration of Sulfided Calcium-Based Sorbents by a Cyclic Process. *Energy & Fuels.* 1996, 10, 821-827
- BG CaS Oxidation by Reaction with CO₂ and H₂O. *E.J. Anthony, L. Jia and K. Qiu, CETC, Natural Resources Canada, 1, Haanel Dr., Ottawa, Canada K1A 1M1*

Applicant respectfully requests that these references be entered into the record of this application. The Examiner is requested to initial the appropriate area on the enclosed copies of PTO/SB/08A and PTO/SB/08B, thereby indicating consideration by the Examiner of each of these references.

Applicant respectfully submits that the present claims are patentable over the references identified herein, and requests timely and favourable examination of this application.

The Commissioner is hereby authorized to debit any underpayment or credit any overpayment to the USPTO deposit account no. 16-0600 should any additional fees be necessary.

Respectfully submitted,

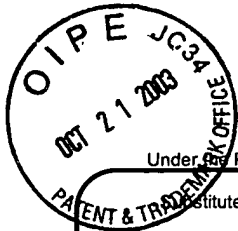
Dennis R. Haszko
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20 October 2003

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DRH:ds/Enclosures



Institute for form 1449/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

C mplete if Kn wn

Application Number	10/600,345
Filing Date	23 Jun 2003
First Named Inventor	Anthony, E.J. et al.
Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	1004P60US01

Sheet 1 of 3

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA	US- 3,688,438	09-05-1972	Slater et al.	
	AB	US- 3,709,669	01-09-1973	Marion et al.	
	AC	US- 3,922,148	11-25-1975	Child	
	AD	US- 3,944,486	03-16-1976	Kwon	
	AE	US- 4,102,989	07-25-1978	Wheelock	
	AF	US- 4,216,197	08-05-1980	Moss	
	AG	US- 4,262,610	04-21-1981	Hein et al.	
	AH	US- 4,321,242	03-23-1982	Feinman et al.	
	AI	US- 4,370,161	01-25-1983	Turkdogan	
	AJ	US- 4,410,336	10-18-1983	Blaskowski	
	AK	US- 4,424,197	01-03-1984	Powell et al.	
	AL	US- 4,435,148	03-06-1984	Moss	
	AM	US- 4,503,785	03-12-1985	Scocca	
	AN	US- 4,602,573	07-29-1986	Tanca	
	AO	US- 4,609,541	09-02-1986	Calderon	
	AP	US- 4,624,192	11-25-1986	Mansfield	
	AQ	US- 4,635,572	01-13-1987	Nickel	
	AR	US- 4,686,090	08-11-1987	Howell et al.	
	AS	US- 4,704,136	11-03-1987	Weston et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				

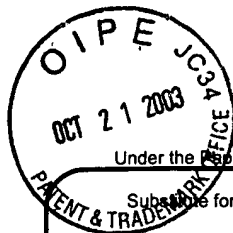
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This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND

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Complete if Known

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		Number-Kind Code ² (if known)			
	AT	US- 4,722,832	02-02-1988	Weston et al.	
	AU	US- 4,738,207	04-19-1988	Moss	
	AV	US- 4,913,068	04-03-1990	Brannstrom	
	AW	US- 5,027,723	07-02-1991	Landreth et al.	
	AX	US- 5,228,399	07-20-1993	Weatherly	
	AY	US- 5,396,849	03-14-1995	Boyd	
	AZ	US- 5,551,357	09-03-1996	Wu et al.	
	AAA	US- 5,653,955	08-05-1997	Wheelock	
	AAB	US- 5,662,051	09-02-1997	Morin	
	AAC	US- 6,083,862	07-04-2000	Wheelock	
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		Country Code ³ Number ⁴ Kind Code ⁵ (if known)				

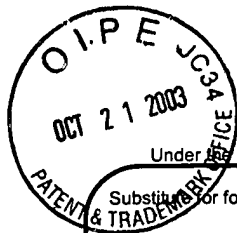
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PTO/SB/08B (08-03)

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Sheet 3 of 3

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	BA	The British Coal Spouted Fluidized Bed Gasification Process. The Canadian Journal of Chemical Engineering, Volume 70, October, 1992, 991-997	
	BB	The Rate and the Fundamental Mechanisms of the Reaction of Hydrogen Sulfide with the Basic Minerals in Coal. Ind. Eng. Chem. Process Des. Dev. 1979, 18, 607-618	
	BC	Reaction of H ₂ S and Sulfur with Limestone Particles. Ind. Eng. Chem. Process Des. Dev. 1984, 23, 742-748	
	BD	The Sulphidation of Calcined Limestone with Hydrogen Sulphide and Carbonyl Sulphide. Chem. Eng. Sci. 1995, 50, 2983-2996	
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	BG	CaS Oxidation by Reaction with CO ₂ and H ₂ O. E.J. Anthony, L. Jia and K. Qiu, CETC, Natural Resources Canada, 1, Haanel Dr., Ottawa, Canada K1A 1M1	

Examiner Signature	Date Considered
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